gain of the antenna in the assigned frequency band shall be at least 30 dB within its primary coverage area.

(j) Space stations to be operated in the geostationary satellite orbit must be:

(1) Designed with the capability of being maintained in orbit within 0.05° of their assigned orbital longitude,

(2) Maintained in orbit at their assigned orbital longitude within the longitudinal tolerance specified by the Commission, and

(3) The Commission may authorize operations at assigned orbital longitudes offset by 0.05° or multiples thereof from the nominal orbital location specified in the station authorizations.

(k) Antenna measurements of both co-polarized and cross-polarized performance must be made on all antennas employed by space stations both within the primary coverage area to facilitate coordination with other Commission space station licensees and outside the primary coverage area to facilitate international frequency coordination with other Administrations. The results of such measurements shall be submitted to the Commission within thirty days after preliminary in-orbit testing is completed.

(l) All operators of space stations shall, on June 30 of each year, file a report with the International Bureau and the Commission's Columbia Operations Center in Columbia, Maryland, containing the following information current as of May 31 of that year:

(1) Status of satellite construction and anticipated launch dates, including any major problems or delays encountered;

(2) A listing of any non-scheduled transponder outages for more than thirty minutes and the cause(s) of such outages;

(3) A detailed description of the utilization made of each transponder on each of the in-orbit satellites. This description should identify the total capacity or the percentage of time each transponder is actually used for transmission, and the amount of unused system capacity in the transponder. This information is not required for those transponders that are sold on a non-common carrier basis. In that case, operators should indicate the number of transponders sold on each in-satellite orbit.

(4) Identification of any transponders not available for service or otherwise not performing to specifications, the cause of these difficulties, and the date any transponder was taken out of service or the malfunction identified.

[58 FR 13420, Mar. 11, 1993, as amended at 61 FR 9952, Mar. 12, 1996; 62 FR 5931, Feb. 10, 1997; 62 FR 61457, Nov. 18, 1997; 68 FR 51508, Aug. 27, 2003]

EFFECTIVE DATE NOTE: At 69 FR 54587, Sept. 9, 2004, §25.210 was amended by revising paragraph (j), effective Oct. 12, 2004. For the convenience of the user, the revised text is set forth as follows:

§ 25.210 Technical requirements for space stations in the Fixed-Satellite Service.

* * * * *

(j) Space stations operated in the geostationary satellite orbit must be maintained within 0.05° of their assigned orbital longitude in the east/west direction, unless specifically authorized by the Commission to operate with a different longitudinal tolerance, and except as provided in Section 25.283(b) (End-of-life Disposal).

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§ 25.211 Video transmissions in the Fixed-Satellite Service.

(a) Downlink analog video transmissions in the band 3700–4200 MHz shall be transmitted only on a center frequency of 3700+20N MHz, where N=1 to 24. The corresponding uplink frequency shall be 2225 MHz higher.

(b) All 4/6 GHz analog video transmissions shall contain an energy dispersal signal at all times with a minimum peak-to-peak bandwidth set at whatever value is necessary to meet the power flux density limits specified in §25.208(a) and successfully coordinated internationally and accepted by adjacent U.S. satellite operators based on the use of state of the art space and earth station facilities. Further, all transmissions operating in frequency bands described in §25.208 (b) and (c) shall also contain an energy dispersal signal at all times with a minimum peak-to-peak bandwidth set at whatever value is necessary to meet the power flux density limits specified in

§ 25.208(b) and (c) and successfully coordinated internationally and accepted by adjacent U.S. satellite operators based on the use of state of the art space and earth station facilities. The transmission of an unmodulated carrier at a power level sufficient to saturate a transponder is prohibited, except by the space station licensee to determine transponder performance characteristics. All 12/14 GHz video transmissions for TV/FM shall identify the particular carrier frequencies for necessary coordination with adjacent U.S. satellite systems and affected satellite systems of other administrations.

(c) All initial analog video transmissions shall be preceded by a video test transmission at an uplink e.i.r.p. at least 10 dB below the normal operating level. The earth station operator shall not increase power until receiving notification from the satellite network control center that the frequency and polarization alignment are satisfactory pursuant to the procedures specified in § 25.272. The stationary earth station operator that has successfully transmitted an initial video test signal to a satellite pursuant to this paragraph is not required to make subsequent video test transmissions if subsequent transmissions are conducted using exactly the same parameters as the initial transmission.

(d) In the 6 GHz band, an earth station with an equivalent diameter of 9 meters or smaller may be routinely licensed for transmission to full transponder services if the maximum power into the antenna does not exceed 450 watts (26.5 dBW). In the 14 GHz band, an earth station with an equivalent diameter of 5 meters or smaller may be routinely licensed for transmission of full transponder services if the maximum power into the antenna does not exceed 500 watts (27 dBW).

[58 FR 13421, Mar. 11, 1993, as amended at 61 FR 9952, Mar. 12, 1996; 62 FR 5931, Feb. 10, 1997]

§ 25.212 Narrowband transmissions in the 12/14 GHz GSO Fixed-Satellite Service.

(a) Except as otherwise provided by this part, criteria for unacceptable levels of interference caused by other satellite networks shall be established on the basis of nominal operating conditions and with the objective of minimizing orbital separations between satellites.

(b) Emissions with an occupied bandwidth of less than 2 MHz are not protected from interference from wider bandwidth transmissions if the r.f. carrier frequency of the narrowband signal is within ±1 MHz of one of the frequencies specified in § 25.211(a).

(c) In the 14 GHz band, an earth station with an equivalent diameter of 1.2 meters or greater may be routinely licensed for transmission of narrowband analog services with bandwidths up to 200 kHz if the maximum input power density into the antenna does not exceed −8 dBW/4 kHz and the maximum transmitted satellite carrier EIRP density does not exceed 13 dBW/4 kHz, and for transmission of narrowband and/or wideband digital services, if the maximum input power density into the antenna does not exceed −14 dBW/4 kHz and the maximum transmitted satellite carrier EIRP density does not exceed +6.0 dBW/4 kHz.

(d) In the 6 GHz band, an earth station with an equivalent diameter of 4.5 meters or greater may be routinely licensed for transmission of SCPC services if the maximum power densities into the antenna do not exceed +0.5 dBW/4 kHz for analog SCPC carriers with bandwidths up to 200 kHz, and do not exceed −2.7 dBW/4 kHz for narrow and/or wideband digital SCPC carriers.

[58 FR 13421, Mar. 11, 1993, as amended at 62 FR 5931, Feb. 10, 1997; 62 FR 51378, Oct. 1, 1997]

§ 25.213 Inter-Service coordination requirements for the 1.6/2.4 GHz mobile-satellite service.

(a) Protection of the radio astronomy service in the 1610.6–1613.8 MHz band against interference from 1.6/2.4 GHz Mobile-Satellite Service systems.

(1) *Protection zones.* All 1.6/2.4 GHz Mobile Satellite Service systems shall be capable of determining the position of the user transceivers accessing the space segment through either internal radiodetermination calculations or external sources such as LORAN–C or the Global Positioning System. During periods of radio astronomy observations,